

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed February 19, 2004.

Claims 15, 18-20, 30-33, 36-38, 43, 46 and 47 were pending in the Application prior to the outstanding Office Action. In the Office Action, the Examiner allowed claims 15, 18-20, 43, 46 and 47, rejected claims 30, 31 and 36-38, and objected to claims 32 and 33 solely as being dependent upon a rejected base claim. The present Response amends claims 30, 32 and 36, leaving for the Examiner's present consideration claims 15, 18-20, 30-33, 36-38, 43, 46 and 47.

ALLOWABLE SUBJECT MATTER

The Examiner indicated that independent claims 15 and 43 are allowed. Dependent claims 18-20 and 46-47 depend from claims 15 and 43 respectively, and are also allowed. Applicants thank the Examiner for this determination.

Claims 32-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank the Examiner for this determination, and have amended claim 32 to include the limitations of independent claim 30 and intervening dependent claim 31. Claim 33 is dependent upon claim 32. Applicant respectfully submit that claims 32-33 are now in condition for allowance.

RESPONSE TO REJECTION UNDER 35 USC §102

The Examiner rejected claims 30-31 and 36-38 under 35 USC §102(b) as being anticipated by United States Patent No. 5,778,092 ("Macleod"). Applicants respectfully traverse this rejection.

MacLeod et al. discloses a “technique for compressing scanned representations of color or gray scale documents.” (Col. 3, lines 48-49). In particular, MacLeod et al. discloses “the pixel map representing a color or gray-scale document is decomposed into a three plane page format . . . comprised of a ‘foreground’ plane, a ‘background’ plane, and a ‘selector’ plane.” (Col. 4, lines 11-15). The foreground and background plane each contain image information, “stored at the same bit depth and number of colors as the original raw pixel map.” (Col. 4, lines 16-17). The selector plane, in contrast, is stored as a bitmap, a binary pixel map in which pixels can take one of two values, 1 or 0. (Col. 4, lines 18-19 and lines 8-10).

Thus, in MacLeod et al., the selector plane is used to choose between a pixel in the foreground plane or a pixel in the background plane. The choice between a foreground pixel and a background pixels is exclusive. The selector plane is used to decompress an entire image by choosing a foreground pixel or a background pixel, but not both. This embodiment of MacLeod et al. does not disclose performing any sort of arithmetic operation of pixels from more than one plane.

An alternate embodiment of MacLeod et al. performs a weighted average between corresponding pixels of the foreground and background plane in order to produce the output image. This weighted average is computed for every pixel of the output image. As stated by MacLeod et al. in Step 2511 of Figure 25b, “for each output pixel compute output pixel as weighted average of foreground and background pixel value.” Since every pixel of the output image is a weighted average of foreground and background pixels, every output pixel in the decompressed image is an arithmetic combination of the foreground and background pixels. Because every pixel in this embodiment is an arithmetic combination of the foreground and

background pixels, there is no selection between pixels of a single plane and an arithmetic operation of pixels from more than one of said plural planes.

Unlike MacLeod, the present invention as claimed in claims 30 and 36 teaches determining whether to select pixels from an additive plane or one or more other planes. Thus, the present invention does not automatically select pixels from an additive plane to generate an image. Once generated, pixels from the additive plane are used with pixels from other planes to reconstruct the image.

Claims 30 and 36 recite the element of determining whether to select pixels from an additive plane or one or more other planes, and thereby distinguish the claimed invention from MacLeod. Claims 31 and 37-38 all directly or indirectly depend from independent claims 30 and 36, respectively. Therefore, Applicants respectfully submit that claims 30-31 and 36-38 are patentable over MacLeod and Applicants have overcome the rejection based on MacLeod.

Conclusion


The references cited by the Examiner but not relied upon have been reviewed, but are not believed to render the claims unpatentable, either singly or in combination.

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and a Notice of Allowance is requested. The Examiner is respectfully requested to telephone the undersigned before an advisory action is issued in order to avoid any unnecessary filing of an appeal.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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